1) After yesterday's discussion, we have revised the outline of the final set of comments, which are due on January 30. Please see the final version of the outline below. It is our intention to use this same outline for the summary report that we are asked to provide to the Governor by February 26. The summary report will consist of the written comments we receive between now and January 30.
2) We hope to use your own words to reflect your position and that is why we are asking everyone to adhere to the length limits described below. If you go over these limits, we will likely end up with a report that is simply too lengthy to be called a summary report and we will have to shorten your comments. In the same vein, we may have to combine comments that are expressing the same position if the length of the overall report becomes an issue.
3) The outline reflects issues discussed in previous comments and we are not asking every party to provide comments on every topic or section.
4) Please keep the length of your comments to 500 words for any subsection (e.g., II. A. or III. C.) you are commenting on. If you exceed this, we may be forced to edit/summarize your comments to fit this limit.
5) If you want to also provide comments that exceed these limits (in addition to your comments under the limit), feel free to do so in a separate document. The final report will note those parties that filed a separate, longer set of comments and the report will describe how to access those comments via the ICC website.
6) Please provide your comments in this Microsoft Word document, if possible.
7) Even if you make no changes to comments that you have previously submitted, please add those comments to the relevant subsection in this document.
8) If you previously submitted comments and we receive no further comments from you by January 30, we will note in the final report that you have filed comments and how to access those comments via the ICC website.
9) All comments will be posted to our webpage at https://www.icc.illinois.gov/Electricity/workshops/MISOZone4.aspx

Resource Adequacy in MISO Zone 4
Outline for January 30, 2018 Comments

I. Resource Adequacy Standards

A. How should resource adequacy be defined and how does resource adequacy compare with or contrast with resiliency and reliability?

Resource adequacy, reliability, and resilience are separate, but closely related, concepts. CUB recommends defining the three criteria as follows:

Resource adequacy: The bulk electric system's ability to provide capacity adequate to serve peak load. If there is enough supply available to meet peak demand for the foreseeable future, there is no resource adequacy problem.

Reliability: The system's compliance with NERC reliability standards, which look to a system's consistency in serving load under typical circumstances.[1]

Resiliency: "[T]he ability of the bulk power system to withstand or recover from disruptive events," as the Federal Energy Regulatory Commission summarized the consensus view among commenters on consideration of the Department of Energy's Grid Reliability and Resiliency Pricing NOPR.[2]

All of three of these characteristics are resource-neutral and should be treated as such. Assessments of an individual resource's contribution to resource adequacy, reliability, and resiliency should look solely to the traits and performance of the resource itself and the infrastructure connecting the resource to the grid. It would be imprudent to presume one fuel type is inherently more reliable or resilient than another. Further, all three of these metrics are indifferent to whether load is served by increasing supply through generation or decreasing demand through energy efficiency, price-responsive demand, or demand response.

B. What entities currently address resource adequacy, how do they do so, and how sufficient are such current measures?

MISO, utilities, and the Illinois Power Agency each have a role in ensuring resource adequacy in Zone 4. MISO forecasts peak load and sets the reserve margin, thereby establishing each utility's unforced capacity requirement. Utilities fulfill their capacity obligations via the MISO-administered capacity construct (the planning resource auction, or "PRA"), fixed resource adequacy plan ("FRAP") submissions, zonal resource credits ("ZRC"), and self-supply. As Illinois Industrial Energy Consumers cited in their pre-workshop comments and CUB reiterated in our post-workshop comments, the PRA accounted for 14.7 percent of the total Zone 4 capacity requirement in the 2017/2018 auction year. The remaining over 85 percent was acquired outside of the PRA.

The system currently in place is working and has successfully provided for resource adequacy for 20 years. Since MISO adopted competitive retail markets in 1997, there has not been a resource adequacy problem in Zone 4. This success is evident in Zone 4

[1] *See* N. AM. ELECTRIC RELIABILITY CORP., RELIABILITY STANDARDS FOR THE BULK ELECTRIC SYSTEMS OF NORTH AMERICA (2017), http://www.nerc.com/pa/Stand/Reliability%20Standards%20Complete%20Set/RSCompleteSet.pdf.
[2] 162 FERC ¶ 61, 102, 61,114 (Docket Nos. RM18-1, AD18-7, Jan. 8, 2018).

having satisfied MISO's target reserve margin year after year. Pursuant to NERC standards, MISO's resource adequacy criteria require that the calculated loss of load expectation ("LOLE") be less than one day per ten years. To meet this stringent reliability standard, system operators must expect less than one day per ten years for which peak demand exceeds available capacity.

Zone 4 has exceeded the one-in-ten standard every year for twenty years. The system has not once failed to serve peak demand in this time. It would be unreasonable for NERC to impose a zero-in-twenty standard, yet Zone 4 has had zero loss of load events in twenty years. This long record of success underscores that the burden is on those who suppose Zone 4 has a resource adequacy problem, and the available data suggests the opposite. There is no reason to conclude Zone 4's decades-long streak of serving peak load is at risk.

The current resource adequacy regulatory regime is working and is projected to continue to ensure resource adequacy with room to spare moving forward. As CUB's pre-workshop comments illustrated, load is flat, capacity growth is on pace to exceed target planning reserve margins through at least 2022, and implementation of the Future Energy Jobs Act ("FEJA") will further bolster resource adequacy in the coming years.

Further, even should the most pessimistic forecasts of available capacity prove too bullish, MISO provides a backstop through its System Support Resources ("SSR") policy. Retirements and suspensions are planned in advance and require MISO approval. If MISO finds the exit may threaten reliability, MISO and stakeholders seek out potential alternatives. If a feasible alternative exists, the alternative is adopted and exit is approved. If not, MISO enters into an SSR agreement with the resource, under which the resource runs and is compensated accordingly.

II. Resource Adequacy Measurement

A. How much generation is currently available to meet Zone 4 resource adequacy requirements?

B. What generation resources formerly meeting Zone 4 resource adequacy requirements have recently been lost due to retirement, derating, declining capacity factor, or otherwise?

C. What current generation resources available to meet Zone 4 resource adequacy requirements are at risk of becoming unavailable going forward and what are the implications of the loss of such resources?

D. What are the prospects for new generation resources becoming available to meet Zone 4 resource adequacy going forward?

In addition to other new generation expected to come online in the coming years, FEJA incentivizes a large influx of new renewable generation. Among these new generation resources are a required 4.3 GW of new wind and solar to be built in Illinois by 2030. As the whitepaper notes, the Act "provides more funding for renewable resource generation deployment to achieve the target" of 25 percent of retail load being served by renewables by 2025. The whitepaper highlights FEJA's providing "both

interim and long-term renewable energy goals" to be met through the Illinois Power Agency's procurement of renewable energy credits annually through 2030, including the Solar for All program. (Whitepaper at 15–16.)

E. What non-generation resources are and may be available to meet resource adequacy and how do such resources impact resource adequacy?

In addition to promoting new generation, FEJA encourages the development of non-generation resources to meet resource adequacy. The Act gives Zone 4 utility Ameren a financial incentive to cut electricity waste by 16 percent by 2030, decreasing load. In testimony before the Commission earlier this year, experts predicted that, with FEJA in place, load in Ameren's service territory will decrease in each forecast year from 2021-22 through 2031-32.[3] These projections, coupled with the MISO survey results projecting resource adequacy through at least 2022, bode well for resource adequacy for the next 14 years.

F. How well do existing programs and initiatives predict future resource adequacy?

III. Market Design Impact on Resource Adequacy

A. What alternative opportunities are available to resources that could otherwise be used to meet resource adequacy in Zone 4 and how do these opportunities impact Zone 4 resource adequacy?

B. How does the transmission system impact resource adequacy?

C. How do facilities owned by municipals and cooperatives affect resource adequacy?

D. How does bilateral contracting, self-supply, and fixed resource adequacy planning affect resource adequacy?

As CUB referred to above, the PRA accounted for less than 15 percent of the capacity requirement for the 2017/2018 auction year. Bilateral contracting, self-supply, and fixed resource adequacy submissions accounted for over 85 percent. Zone 4 fulfilled its resource adequacy targets regardless, as it has for the past 20 years. Utilities meeting the vast majority of their capacity needs through these means does not appear to have had any adverse effect on their ability to ensure resource adequacy.

E. How do so-called out-of-market revenues (revenues separate and apart from those obtained in wholesale markets (e.g., Zero Emission payments or renewable energy credits) impact resource adequacy?

IV. Scope

A. Please provide commentary on any relevant substantive or process issue you believe has not been adequately captured in the Sections above.

V. Potential Policy Options

[3] CUB/EDF Ex. 1.1RH at 2, *In re Ameren Illinois Co.* (Ill. Comm. Comm'n No. 16-0387 May 31, 2017).

A. What changes, if any, should be made to better enable measurement and assessment of what resources are available to meet Zone 4 resource adequacy requirements?

B. What changes, if any, should be made to MISO's capacity construct including to the MISO planning resource auction to better ensure resource adequacy?

CUB recommends no changes to the PRA. In 2017, the Federal Energy Regulatory Commission rejected MISO's attempt to establish a three-year forward capacity auction for Local Resource Zones with competitive retail demand, which would have included Zone 4. FERC, noting that MISO's stated purpose for the proposal was to address resource adequacy, found that MISO had failed to demonstrate that the change was warranted.[4]

C. What changes, if any, should be made to MISO's energy or ancillary service constructs that would help maintain resource adequacy?

D. What actions should the Illinois Commerce Commission and/or the Illinois Power Agency take, if any, to address resource adequacy assuming no new legislative authority?

E. What actions should the Illinois General Assembly take, if any, to address Zone 4 resource adequacy?

CUB believes that existing policies are well-suited to meet Zone 4's resource needs for the time being and does not see any need for further policy changes on account of resource adequacy.

F. Please describe any additional potential policy option(s) you would like to see considered or that you would recommend not be considered.

G. Is it important for any selected policy option to be market-based? If so, why? If not, why not?

CUB supports policies that cost-effectively provide necessary grid value for consumers. Many market-based policies are effective in achieving this goal. Any non-market policies would have to provide an alternative means to ensure cost-effectiveness to have CUB's support.

[4] 158 FERC ¶ 16,128 (Docket No. ER17-284, Feb. 2, 2017).